

CLAIMS

1. A memory card comprising:

a flash memory;

an external interface unit operable to transfer data to
5 and from a host apparatus;

a storage unit that prestores a predetermined writable block
size; and

a controlling unit operable, when receiving through the
external interface unit a write command which specifies a write
10 block size, to (a) judge whether the write block size satisfies
a predetermined condition in relation to the writable block size
and (b) perform a control operation concerning whether to permit
writing of data into the flash memory according to a result of
the judgment.

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2. The memory card of Claim 1, wherein

the writable block size is a predetermined integral multiple
of a size of an erase block in the flash memory,

the predetermined condition is that the write block size
20 is an integral multiple of the writable block size, and

the controlling unit performs the control operation to write
data into the flash memory only if the predetermined condition
is satisfied.

25 3. The memory card of the Claim 2 further comprising:

a transmission unit operable to read the writable block
size from the storage unit and transmit the read writable block
size to the host apparatus through the external interface unit.

30 4. The memory card of the Claim 3, wherein

the storage unit further prestores a guaranteed write rate

that indicates a lowest recording rate guaranteed as long as data is written into the flash memory in units of the writable block size, and

the transmission unit further reads the guaranteed write rate from the storage unit and transmits the read guaranteed write rate to the host apparatus through the external interface unit.

5. The memory card of Claim 4, wherein

the storage unit prestores a conditional guaranteed write rate that indicates a lowest recording rate guaranteed as long as data is written into the flash memory in units of a certain integral multiple of the writable block size, and

the transmission unit further reads the conditional guaranteed write rate from the storage unit and transmits the read conditional guaranteed write rate to the host apparatus through the external interface unit.

6. The memory card of Claim 4, wherein

the storage unit further prestores a buffer memory capacity data that is predetermined to indicate a capacity required for a buffer memory that is equipped in the host apparatus, to guarantee the lowest recording rate indicated by the guaranteed write rate, and

the transmission unit further reads the buffer memory capacity data from the storage unit and transmits the read buffer memory capacity data to the host apparatus through the external interface unit.

7. The memory card of Claim 4 further comprising:

an update unit operable, responding to a request from the host apparatus that is received through the external interface

unit, to rewrite the writable block size prestored in the storage unit so that the writable block size becomes smaller than the original writable block size, and then update the guaranteed write rate according to the rewritten writable block size.

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8. The memory card of Claim 3 further comprising:

a writable block size update unit operable, responding to a request from the host apparatus that is received through the external interface unit, to rewrite the writable block size
10 prestored in the storage unit so that the writable block size becomes smaller than the original writable block size.

9. A memory card system comprising:

the memory card of Claim 1; and
15 a host apparatus that transfers data to and from the memory card, wherein

the host apparatus includes a read-modify-write unit operable, when a size of a first data to be written into the memory card does not reach the writable block size, to (a) read a second
20 data from a flash memory that is included in the memory card through the external interface unit, and (b) put the first data and the second data together to generate a third data so that the third data has the same size as the writable block size, and then (c)
transmit a write command to the memory card to write the third
25 data into the flash memory.